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PROBLEMS AND CHOICES IN PROCUREMENT OF TECHNICAL REPORTS

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Practical problems faced in procurement of foreign, unclassified hardcopy reports are discussed under the heads bibliographic control and access, avoiding duplication, efficiency of suppliers, economies in buying reports and physical condition of reports supplied by various agencies.

Introduction

Importance of technical reports for mission and problem oriented research such as space science and satellite technology, energy, education, environment, etc. needs no overemphasis (1). Reports are normally not handled in the traditional way through the channels of book trade though there are book-sellers acting as agents for some clearing houses. There is enormous duplication among sources and selection tools of reports. At the same time there is no single source, single selection tool and single mode of procurement of reports which can efficiently and effectively meet the requirement of a library.

1 Scope

An attempt is made here to highlight the problems faced by Indian libraries in acquiring reports with suitable illustrations drawn from the case study of ISRO Satellite Centre (ISAC) Library (2). The treatment here excludes procurement of classified reports, reports in microforms and Indian reports as classified

reports throw limited opportunity for acquiring, decision to go for microform reports is largely governed by user acceptance, budget, space, supporting user equipment facility, etc., and finally more than 90% of the reports at ISAC Library are of foreign origin. In other words, this paper deals with procurement of foreign unclassified, declassified and unrestricted hardcopy reports against demand.

2 Procurement Methods

Unclassified, declassified and unrestricted reports can be acquired in many ways. Normally free initial distribution of limited number of copies of such reports is done by publications department or library of the organisation which brings out report. Contractors decide the list for free distribution in case of contract reports. Some agencies continue to supply reports even after initial distribution. Others redirect all requests for free copies to authorised depositors or clearing houses such as NTIS, USGPO, HMSO, etc., which are responsible for secondary distribution of reports.

Firstly, considerable number of reports come to library as unsought supply due to institutional or individual affiliation or contact or membership with a committee or organisation. Secondly, users themselves donate reports they often receive free. Thirdly, the library after deliberate scanning of announcement bulletins of reports such as STAR, GRA&I, BRTT, R&D Abstracts (now ceased) etc., and also based on suggestions received from users, contacts issuing agencies for free supply of reports. Catching reports as gifts while they are in initial distribution stage is naturally the least expensive method.

ISAC Library as well as parent organisation have tried and settled few bilateral agreements with other similar organisations and agencies for exchange of reports. Success of such agreements normally depend on keeping exchange process alive. It also depends on how many reports can be offered by an organisation and how much relevant and useful they are to the receiving organisation. No national and international depositories and clearing houses could be involved in such a program due to some practical problems. Lastly, one important caution in acquiring reports as

gifts or on exchange basis is that library should resist temptation to receive and retain ephemeral and irrelevant reports.

Before proceeding for buying reports, we carefully consider borrowing reports from other libraries and xeroxing at our reprographic facility wherever they are not copyrighted. This is a crucial step as many commercial suppliers also provide only xerox copies of reports at exhorbitant rates involving precious foreign exchange. Wherever allowed, we prefer to make a single copy for noncommercial use from copies available within ISRO (i.e., Headquarters and other three major centres of ISRO) as a means of quick service. Occasionally we buy microfiche copies of reports in addition to sizeable microfiche reports received as part of SRIM service of NTIS and make paper copies with the facility available at Library. This is also very economical method next only to 'gift' and 'exchange' methods discussed above. At times reports are supplied only in microfiche forcing us to resort to this method. We also have a trial standing order for Formal series reports of NASA, a service offered by NTIS. Though it is too early to comment, this is expected to be quite useful economical. In addition, this service brings mostly original printed copies of popular NASA reports as and when published, in any case much earlier than other methods of procurement. All other reports needed by users are purchased from various commercial sources. Operating deposit account and photocopy coupon system with USGPO and BLLD respectively, are also found quite convenient in some cases.

3 *Procurement Problems*

So far, we discussed different methods of procurement of reports without highlighting the problems. Summarising the general problems of so called grey literature which includes reports Wood (3) says "... its distribution is hapazard, it is produced in limited quantities and it is not subject to rigorous quality control either at the editing or production stage. As such, it is difficult to discover, difficult to acquire, often difficult to store, frequently difficult to read and difficult to copy". Now we shall discuss major problems of Indian libraries in procuring technical reports under the heads bibliographic control and access, avoiding duplication efficiency of suppliers, economy in buying reports and physical condition of reports.

3 Bibliographic Control and Access

By very nature, reports are neither easily accessible nor fully and satisfactorily subjected to bibliographic control. There are hundreds of organisations in each field bringing out thousands of reports each year. However, a small segment consisting of unclassified, declassified and unrestricted reports released for clearing houses and depositories are fairly bibliographically controlled. We can even say that they are subjected to excess bibliographic control leading to problems of overlapping coverage in announcement bulletins, multiplicity of report accession numbers and duplication of efforts.

A derogatory thing for libraries in India is that we pay hard foreign exchange to subscribe to many announcement bulletins such as STAR, GRA&I, etc., which overlap in their coverage to a great extent. As number of announcement bulletins subscribed by the Library is increased the law of diminishing return operates rigorously giving very few new relevant reports. On the other hand not having sufficient announcement bulletins hinders the process of identifying correct bibliographic details before approaching the right source for supply.

Table 1 presents a selected list of announcement bulletins and sources for reports. Some of the announcement bulletins are quite complicated for use. Leave alone the innocent users even trained library staff have to spend sufficient time to study and familiarise the classification and arrangment of entries, codes, symbols, etc., used in different announcement bulletins. As an illustration we can examine STAR and GRA&I. All reports listed in STAR are not available for purchase. Even those available have to be purchased from USGPO or NTIS. Though STAR uses many codes and symbols, its arrangement and subject orientation are much better than GRA&I.

On the other hand, NTIS, the biggest self-sustaining commercial source for reports, does not restrict to any subject or field. As a result GRA&I (one of its many dissemination tools) not only covers reports on virtually almost all fields without any quality checks but also overlaps in coverage with other lists and services

TABLE 1. Selected Announcement Bulletins and Sources for Reports

Sl. No.	Title of the Bulletin	Publisher	Country	Periodicity	Approx. no. of reports covered per year	Availability of reports
1.	GRA&I	NTIS	USA	BW	70,000	NTIS
2.	ERA	DOE	USA	SM	27,000	USGPO & NTIS
3.	STAR	NASA	USA	SM	25,000	USGPO & NTIS
4.	TAB	DDC	USA	SM	40,000	(Classified & restricted reports) Not
5.	Monthly Catalog	USGPO	USA	M	NA	USGPO
6.	SRA	The Rand Corp.	USA	Q	400	The Rand Corp.
7.	Catalog of ESA publications	ESA	UK	A	150	ESA
8.	R&D abstract (Now ceased)	TRC	UK	SM	6,000	TRC
9.	BRATT*	BLLD	UK	M	4,000	BLLD

* It is claimed that about a lakh reports are acquired per year by BLLD (*source*: Wood, David "Grey literature – The role of the British Lending Division", *Aslib Proceedings*, 34(11/12) Nov/Dec 1982, p 460).

of NTIS as well as STAR. NTIS has adopted both COSATI subject categories and subject categories of its own for arrangement of entries and items in GRA&I, SRIM and other dissemination services. Subject index of GRA&I is further complicated by lack of controlled vocabulary and use of four major and five minor thesauri defeating the very purpose of using controlled vocabulary. This is precisely because DDC, DOE and NASA provide their inputs to NTIS after processing with their respective thesauri. Other reports are indexed by NTIS using TEST apart from use of additional minor thesauri wherever needed. The argument of NTIS to shift the burden of multiple thesauri on users is not convincing. In addition to such incompatibilities, GRA&I is strongly criticised by

many users for its arrangement, too broad and unpredictable coverage, delay in publishing indexes, especially annual indexes, overlapping with the coverage of other announcement bulletins, inconsistent bibliographic entries, announcing reports which are not distributed by NTIS, multiplicity of report numbers and too many cross referencing entries in between primary entries. Thus GRA&I is a typical *Kichidi* mixing up everything and making its productive use for selection and procurement of reports limited.

Many organisations within USA as well as outside USA have no binding to distribute their reports only through NTIS or similar agencies. As a result good number of reports available from NTIS are also available directly from originating organisation at a much cheaper price. Most of the non US reports (including RAE, DFVLR, AGARD, etc.) and few US reports such as Rand Corporation, JPL, etc., could be cited as examples.

Inspite of these handicaps and soaring prices of its products, NTIS has been growing strong. For us in India, NTIS has become almost inevitable source for buying many reports as we neither have a national clearing house depository for reports nor direct access to major US organisations such as NASA, DDC, DOE, etc.

3.2 Avoiding Duplication

Once decided to buy reports a precarious problem of duplication of their contents with other forms of literature already available or likely to be procured shortly is faced. "It is generally believed that much of the material presented in technical reports is often republished in other forms such as journal articles" (4). A study (5) indicated that 50% of AFOSR and 60% of NASA classified reports are eventually published in open literature and about one third of all unclassified technical reports of USAEC (in 1958) were published as articles in professional or technical periodicals. Another survey (6) of 2,500 unclassified technical reports by Library of Congress showed that about 60–65% of reports contain publishable information, about half of which are published in the open literature within 2–3 years, a fifth of such reports are not published for several years. Thus "an appreciable fraction of information in technical reports appear within a year or two in conventionally

published form" (7) although there may not be one-to-one relation between report and article or conference paper. We have found it very difficult to avoid this sort of content duplication (which is normally not noticed till the stage of actual use) between reports and periodical articles, conference papers and occasionally, monographs.

Another type of duplication is acquiring two or more copies of the same report. This may occur as one copy might have been received as gift or on exchange basis or as part of a standing order and the other is purchased against demand during the same period. Library has very little control over such situation unless on demand purchase is initiated after a month or two of receiving first copy. On the other hand, such duplication may also occur under different report numbers/contract numbers/report accession numbers as reports are normally checked for duplication by their numbers rather than author and title. Normally, suppliers insist on report accession number alloted by them than the original report number for quick supply. However, users continue to quote usual report numbers or contract numbers. This problem is an extension of bibliographic control aggravated by multiplicity of report numbers.

Let us digress a little bit and look at this report number hazard. We may note initially that order trays, catalogs (card cabinet) and actual arrangement of reports depend heavily on report numbers, which are supposed to be unique (and hence 'pseudo call numbers') for avoiding duplicates as well as retrieval. That means order trays and catalogs should provide approach by all possible report numbers including contract numbers and accession numbers of report handling agencies such as NASA and NTIS. In addition to unintelligible multiplicity of numbers may arise due to multiple sponsorship, contract number, grant number, accession numbers of the successive handling agencies, etc. An example of a single report bearing seven different numbers is quoted in the Dictionary of report series code (8). This dictionary had 13,000 codes in its first edition in 1962 and the number became almost double (i.e. 21,600) in second edition in 1973. It is uncommon to find reports with 4 or 5 report numbers in STAR and GRA&I

occupying lot of space. The advantages if any, of contract numbers, grant numbers and accession numbers of handling agencies is offset by need to create too many cross references and resultant irritating and bulky card catalog and order tray. Further, accession numbers added by less popular agencies who neither have comprehensive coverage nor announcement bulletins are nuisance.

Many reports contain some report numbers printed and others handwritten, often incomplete leading to difficulty in recognising and providing cross references in card catalog and order trays. The ambiguous presentation of a report number is also not uncommon. Inconsistent way of permuting the components of report numbers and interchanging connecting symbols such as stroke, hypen, dot, etc., exist in many cases. Change of name of organisation and hence report series code part of the number also takes place though rarely. Report numbers are further proliferated by abundance of errors in texts and announcement bulletins. Number of characters of report numbers reach even as high as twenty seven. Dictionary of report series codes cites how AFOSR reports are listed in seven ways in a single GRA&I issue (9). In addition report codes do have plenty of synonyms. IR stands for eleven different meanings. NAL stands for both National Aerospace Laboratory of Japan and National Aeronautical Laboratory of India. These are only few examples to illustrate how library can err in ordering a report or supplier may send a report which is already available in the library under different number. There are standard guidelines for assigning report numbers but unfortunately they are not successfully enforced. The problem of unintentionally landing with a duplicate copy of report can be avoided to some extent if one or two unambiguous, permanent, complete, concise and unique report numbers are used in a consistent way with each and every report.

33 Efficiency of Suppliers

Choosing appropriate and efficient supplier/vendor for reports is faced once correct bibliographic details are located. Unlike books, choosing right vendor for reports is always complicated and difficult. As already mentioned there are a number of report

originating agencies such as ESA, RAE, FSI, Rand Corporation, UOW, DFVLR, etc., which supply reports directly. On the other hand several agencies such as NTIS, INFODOC, INFONORM, CED, USGPO, BLLD, HMSO, etc., act as commercial sources with widely differing price schedules. The price schedule of agencies such as NTIS are highly differentiated between foreign and domestic and all allied countries. The economy aspect of buying is dealt in detail in a later section. All except NTIS could be approached directly or through any vendor. NTIS has three exclusive agents in India with identical price schedule and other conditions.

To assess the efficiency of all these suppliers is very difficult as it involves many factors apart from economy. First of all non-supply of reports for years is quite derogatory. Status of pending supplies from a representative random sample orders made at ISAC Library is presented in Table 2. The first three suppliers in the table are official agents of NTIS in India. Fourth represent a group of foreign vendors. The fifth and sixth are mostly direct supply sources i.e., report originating agencies. The following limitations of the data should be noted before drawing any inference. Firstly, most of the orders on Indian agents were made during 1980 and 81 whereas almost all orders on Foreign agents and suppliers were made during 1981 and 82. This tendency of switching over from Indian supplier to Foreign suppliers will be quite obvious when we examine economy aspect later. Secondly, all the three Indian agents of NTIS supply reports by mandatory airfreight at extra cost of $ 1.65 and $ 3.00 per report depending on volume of report. On the other hand, all orders made on foreign suppliers are for sea mail supply and some of them insist on advance payment till our volume of order crosses a minimum level to allow credit system. Both the reasons lead to some delay in supply of reports in case of foreign suppliers.

Now, looking at Table 2, it is very clear that the over-all supply position, as far as pending supplies are concerned, is not at all encouraging. Among the Indian agents Constellate Consultants have fared slightly better than the other two. A real comparison between Indian agents and Foreign suppliers in efficiency (not in

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TABLE 2 Pending Supplies for Selected Orders made during 1 April 1980 and 30 September 1982 (As on 31 December 1982)

Sl. No.	Supplier	No. of Reps ordered (Sample)	No. of Reports Pending	Percentage of reports pending
1.	Allied	50	8	16
2.	CC	198	10	5
3.	Higg	25	3	12
4.	Foreign Agents	355	88	25
5.	ESA	150	36	24
6.	Others (DFVLR, FSI, ISRG, etc.)	29	4	14
	Total	807	149	18

TABLE 3. Efficiency of Report Suppliers

Sl. No.	Supplier	No. of reports ordered (Sample)	Percentage of Reports supplied				
			Within 3 months	Within 3-6 months	Within 6-9 months	Within 9-12 months	% of reps pend at the end of one Year
1.	Allied	49	33	50	0	0	17
2.	CC	94	50	34	9	1	6
3.	Higg	24	54	33	0	0	13
4.	Foreign Agents	181	0	25	48	4	23
5.	ESA	55	45	40	0	0	15
6.	Others (DFVLR, FSI, ISRG, etc.)	27	63	33	0	0	
	Total	430	27	33	22	2	16

economy, as will be known later that foreign sources are much cheaper than Indian sources) can be done only after ordering by airfreight/airmail with foreign suppliers also. Ignoring all limita-

tions, we see that direct supply sources and Indian agents are slightly better.

The other aspect of efficiency, i.e., how soon reports are supplied, is presented in Table 3 for random sample orders made during April 1981. Here again, one has to note that it takes 3-4 months to receive reports by sea mail in case of foreign suppliers. The following inferences can be drawn from the table subject to limitations noted earlier. Direct supply from report originating agencies (Sl. Nos. 5 & 6 in Table 3) is not only fast but also almost complete by the end of nine months. Only about 50% of the items are supplied by Indian agents within three months. That is in case of half of the items the very purpose of paying extra mandatory air-freight charges is defeated. It may be noted that Indian agents promise to supply reports within 8-10 weeks. Among Indian agents, M/s. Constellate Consultants and M/s. Higginbothams have supplied 84% and 87% of reports respectively within six months, though they have pending supplies of 6% and 13% respectively at the end of one year. The supply has almost stopped at the end of six months in case of M/s. Allied and M/s. Higginbothams whereas it continued in a diminishing rate in case of M/s. Constellate Consultants. The supply has reached peak during 6-9 months period in case of Foreign agents and later continued in diminishing rate. Obviously there is no supply of reports within three months in case of foreign agents. However, by giving a grace of 3-4 months or by switching over to airmail supply, foreign agents are of almost equal in efficiency. Assessing the situation, Library has preferred ordering urgently required items with Indian agents and others with foreign agents to avail the economy as well as efficiency.

To sum up, the process of choosing an appropriate source is to be based on (i) economy, which will be discussed shortly, (ii) efficiency as reflected in supply position experienced by the library and (iii) informativeness and readiness of suppliers to respond to queries of the library. The last consideration is qualitative involving value judgement and the risk of subjectivity. Also this criterion is not normally applicable to foreign agents and direct supply sources as they give less attention for such correspondence. However, having located far off from major agencies such as NTIS

(whose service cannot be availed without sufficient clarifications) we need to depend on Indian agents for increasing the effectiveness of the service. Hence, it is better to remain reticent on this aspect of the agents.

34 Problems of Economy

Number of relevant reports in the field of space science and satellite technology increases approximately by 10% per year and the price of reports also increases by about 10 to 20% per year depending on source. As marginally increased budget cannot balance these two changes the buying power of the library steadily decreases unless greater attention is paid to explore opportunities and find out avenues to buy more information at essentially same or little increased budget. Hence, any library has to care to study the economies of procurement, which obviously has enough scope.

Unlike books, reports are not uniformly priced nor always copyrighted. Further, reports are available from multiple sources with different prices in different currencies and often in cheap microfiche form. Thus, by looking at these apparent facts of the situation we can try to substitute microforms wherever possible, explore the possibility of resource sharing, intensify requests for free copies and copies on exchange basis, look for alternate cheaper sources and even to go for xeroxing reports which are not copyrighted.

As pointed out earlier, ideal is to grab the report from originating organisations at right time either as gift or on exchange basis. When we inevitably resort to buying a report we have to consider economy of the source of supply apart from efficiency and other considerations. To pinpoint how the prices vary among different suppliers, a comparison of selected price schedules of suppliers of reports (as of 1982) is presented in Table 4. The table excludes exceptionally priced items, standing orders and microforms.

We may note that differentiated pricing is followed by most of the agencies. For example, NTIS charges for Indian customers is double the domestic charges applicable to customers in US and USAID countries. Similarly, USGPO charges additional 25% to overseas customers and ESA levies 20% surcharge on buyers from

TABLE 4. Comparison of selected price schedules of suppliers of reports

No. of Pages	NTIS Foreign ($)	NTIS Domestic ($)	Micromedia Ltd. (C$)	GED ($)	BLLD (£)	ESA Foreign ($)	ESA Member (France) (FF)	Rand Corpn. ($)
				0				
10	12	6	8.45 + 1.50	$3 + 22 c per page continuous	(1.97 for 10 or part thereof continuous)			
20								5
25				8.50				
40	15	7.50	13.55 + 3.00		7.88			
50				14.00		15	60	
60	18	9			11.82			5
75			25.35 + 6.00	19.50				
80	21	10.50						
100				25	19.70			
	24	12						
125			33.75 + 9.00	30.50				
	27	13.50				22		7
150				36	29.55		90	
	30	15						
175			42.15 + 12.00	41.50				
	35	16.50						
200				47	39.40			
Over 200+ addl. charges if any	$3 for each addl. 25 p or part thereof + $1.65 upto 150 pages & $3.00 for more than 300 p as *mandatory* air freight charge	$1.50 for each addl. 25 p or part thereof	0.25 *per* addl. page + $3 per page *mandatory* air-mail charge	22 c for addl. page	1.97 for 10 pages or part thereof	201–500 pages $34 & more than 500 pages $44 Photocopies *US* $0.40 per page + postage	201–500 pages FF 140 & over 500 pages FF 175 *Photocopies FF 2* per page	$10 for over 200 pages

nonmember states. NTIS justifies the dual pricing policy saying that the US research and development has been paid for by the US taxpayer and the same need not be given away to others (10). However, it does give it away to selected foreign countries at domestic price. Moreover, NTIS has a sizeable non-US reports in its collection. USGPO allows even overseas customers to main deposit account and luckily does not have Indian agents in between. In case of ESA, the price schedule is applicable to original printed reports and whenever original printed report is not available and microfiche is not opted, xerox copy is supplied at separate price schedule.

It can be seen from Table 4 that an average report of 200 pages costs $ 33/- plus $ 3/- towards mandatory airfreight charges through an Indian agent of NTIS. If the same report is bought from other sources upto 50% can be saved depending on the nature of report and the source. Since the pricing is based on number of pages selection of source has to be based on the volume of the report. As far as possible, reports should be bought from the originating agencies. This will be obvious if we compare the price structure of the Rand Corporation with that of NTIS. BLLD price structure is basically meant for supply of photocopies of periodical articles and it may be economical only for a very short report. It is also learnt that the BLLD and Microinfo, the official agents of NTIS in UK, are working closely together to establish a price structure for NTIS services (11). On the other hand, GED and to some extent Micromedia Ltd. are cheaper than NTIS for reports less than 100 pages. One should also note that "NTIS reports are also available from other libraries and documentation centres that have purchased stocks" (12).

Lastly, Table 5 presents the average landed cost of reports from different sources based on a large sampling study of procurement at ISAC Library during 1982. It is crystal clear from the table that direct purchase costs less than half the cost through an Indian agent and roughly twothird the cost through a foreign agent. Similarly, cost through a foreign agent is twothird compared to that through an Indian agent. This average cost is worked out ignoring the reports received as free and on exchange basis.

TABLE 5. Average Landed Cost of Paper Copy *Reports from Different Sources*

Sl. No.	Supplier	Cost (Rs.)
1.	*Indian Agents*	254
2.	Foreign Agents	171
3.	Other Direct Sources	111

Another aspect, though minor, to be noted is that when a report is purchased through an Indian agent we are subjected to slightly higher conversion rate than directly paying to a foreign source. This is due to the fact that GOC rates followed by the trade are always ahead of RBI conversion rates.

From the above observations, it may be concluded that by and large, as far as possible, one should avoid sources and agencies which are gigantic and commercial in nature with heavy overhead costs and also those having agents and sub-agents.

35 *Problems Relating to Physical Condition of Reports*

Except where reports are directly received from originating agencies, all other sources supply either xerox copies or copies reproduced from microfiche originals leading to poor physical appearance and illegible prints, diagrams and photographs. Loose sheets of reports are stappled together or adhesive bound with or without a thin wrapper. Such reports are normally two times bulkier than original due to reproduction on one side of the paper and do not stand freely on library shelves nor they can withstand constant use by readers. As such a delay of minimum of one month has to be added to such supply before releasing them to use due to compulsory binding work involved. However, establishing a small inhouse bindery as planned at ISAC Library to do such works may reduce delay to some extent. Further, it is often noticed that due to insufficient margins and non-uniform reproduction binding work is made more difficult and clear readability of bound report is affected.

Eventhough NTIS claims that approximately one in five chances customers receive attractive hardbound printed reports,

such chances are very rare in our case might be due to the fact that we buy reports in highly specialised subjects having relatively less demand on NTIS. Mostly we receive stappled or waxbound poorly reproduced reports often with a note that the reproduction is poor as the original report itself was not clear and legible. That is a common feature even in microfiche reports.

4 Conclusion

The opportunities and threats in procuring technical reports discussed so far, are only indicative and not exhaustive. The aim here is not to blame any system or agency but to highlight that as market conditions change, libraries also need to suitably modify their procurement policies. Finally, it is hoped that bringing to surface and discussing such problems may help in drawing the attention of concerned to think, plan and take suitable action to reduce problems wherever possible.

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RAE	:	Royal Aircraft Establishment (UK)
RBI	:	Reserve Bank of India
SM	:	Semi-Monthly
SRA	:	Selected Rand Abstracts
SRIM	:	Selected Research In Microfiche
STAR	:	Scientific and Technical Aerospace Reports
TAB	:	Technical Abstract Bulletin
TEST	:	Thesaurus of Engineering and Scientific Terms
TRC	:	Technology Reports Centre (UK)
UOW	:	University of Waterloo (USA)
USGPO	:	United States Government Printing Office (USA)

About the Author

Dr. M. S. Sridhar is a post graduate in mathematics and business management and a doctorate in library and information science. He is in the profession for last 35 years. Since 1978 he is heading the Library and Documentation Division of ISRO Satellite Centre, Bangalore. Earlier he has worked in the libraries of National Aeronautical Laboratory (Bangalore), Indian Institute of Management (Bangalore) and University of Mysore. Dr. Sridhar has published four books ('User research: a review of information-behaviour studies in science and technology', 'Problems of collection development in special libraries', 'Information behaviour of scientists and engineers' and 'Use and user research with twenty case studies') and 74 research papers, written 19 course material for BLIS and MLIS, presented over 22 papers in conferences and seminars, and contributed 5 chapters to books. **E-mail:** sridharmirle@yahoo.com, mirlesridhar@gmail.com, sridhar@isac.gov.in ; **Phone:** 91-80-25084451; **Fax:** 91-80-25084475.